



PTO/SB/21 (08-03)

Approved for use through 08/30/2003. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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|   |                      |                        |         |
|---|----------------------|------------------------|---------|
| <b>TRANSMITTAL FORM</b><br><br>(to be used for all correspondence after initial filing) | Application Number   | 10/606,467             |         |
|   | Filing Date          | June 30, 2004          |         |
|   | First Named Inventor | Xing Yuan              |         |
|   | Art Unit             | 2832                   |         |
|   | Examiner Name        | Ramon M Barrera        |         |
| Total Number of Pages in This Submission  | 10                   | Attorney Docket Number | IGC-102 |

| ENCLOSURES (Check all that apply)  |   |   |
|--|---|---|
| <input checked="" type="checkbox"/> Fee Transmittal Form                     | <input type="checkbox"/> Drawing(s)                                       | <input type="checkbox"/> After Allowance communication to Technology Center (TC)        |
| <input type="checkbox"/> Fee Attached  | <input type="checkbox"/> Licensing-related Papers                         | <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences     |
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| <input type="checkbox"/> After Final   | <input type="checkbox"/> Petition to Convert to a Provisional Application | <input type="checkbox"/> Proprietary Information  |
| <input type="checkbox"/> Affidavits/declaration(s)                           | <input type="checkbox"/> Power of Attorney, Revocation                    | <input type="checkbox"/> Status Letter  |
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| <input type="checkbox"/> Certified Copy of Priority Document(s)              | <input type="checkbox"/> CD, Number of CD(s) _____                        |   |
| <input type="checkbox"/> Response to Missing Parts/Incomplete Application    | Remarks   |   |
| <input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53 |   |   |

| SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT |                               |
|--|-------------------------------|
| Firm or Individual name                    | George L Rideout, Jr.         |
| Signature                                  | <i>George L. Rideout, Jr.</i> |
| Date                                       | May 24 2004                   |

| CERTIFICATE OF TRANSMISSION/MAILING   |                               |      |             |
|---|-------------------------------|------|-------------|
| I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below. |                               |      |             |
| Typed or printed name   | George L Rideout, Jr.         |      |             |
| Signature   | <i>George L. Rideout, Jr.</i> | Date | May 24 2004 |

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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PTO/SB/17 (10-03)

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# FEE TRANSMITTAL for FY 2004

Effective 10/01/2003. Patent fees are subject to annual revision.

☐ Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT (\$ ) 0

**Complete if Known**

|                      |                 |
|----------------------|-----------------|
| Application Number   | 10/606,467      |
| Filing Date          | June 30, 2004   |
| First Named Inventor | Xing Yuan       |
| Examiner Name        | Ramon M Barrera |
| Art Unit             | 2832            |
| Attorney Docket No.  | IGC-102         |

**METHOD OF PAYMENT** (check all that apply)☐ Check ☐ Credit card ☐ Money Order ☐ Other ☐ None☐ Deposit Account:Deposit  
Account  
Number  
Deposit  
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The Director is authorized to: (check all that apply)

☐ Charge fee(s) indicated below ☐ Credit any overpayments☐ Charge any additional fee(s) or any underpayment of fee(s)☐ Charge fee(s) indicated below, except for the filing fee  
to the above-identified deposit account.**FEE CALCULATION****1. BASIC FILING FEE**

| Large Entity<br>Fee Code (\$) | Small Entity<br>Fee Code (\$) | Fee Description        | Fee Paid |
|-------------------------------|-------------------------------|------------------------|----------|
| 1001 770                      | 2001 385                      | Utility filing fee     |          |
| 1002 340                      | 2002 170                      | Design filing fee      |          |
| 1003 530                      | 2003 265                      | Plant filing fee       |          |
| 1004 770                      | 2004 385                      | Reissue filing fee     |          |
| 1005 160                      | 2005 80                       | Provisional filing fee |          |
| SUBTOTAL (1)                  |                               |                        | (\$ )    |

**2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE**

|                      | Extra Claims | Fee from below | Fee Paid |
|----------------------|--------------|----------------|----------|
| Total Claims 17      | -20** = 0    | X 18           | = 0      |
| Independent Claims 3 | -3** = 0     | X 86           | = 0      |
| Multiple Dependent   |              | 290            | = 0      |

| Large Entity<br>Fee Code (\$) | Small Entity<br>Fee Code (\$) | Fee Description  |         |
|-------------------------------|-------------------------------|--|---------|
| 1202 18                       | 2202 9                        | Claims in excess of 20                                     |         |
| 1201 86                       | 2201 43                       | Independent claims in excess of 3                          |         |
| 1203 290                      | 2203 145                      | Multiple dependent claim, if not paid                      |         |
| 1204 86                       | 2204 43                       | ** Reissue independent claims over original patent         |         |
| 1205 18                       | 2205 9                        | ** Reissue claims in excess of 20 and over original patent |         |
| SUBTOTAL (2)                  |                               |  | (\$ ) 0 |

\*\*or number previously paid, if greater; For Reissues, see above

**FEE CALCULATION** (continued)**3. ADDITIONAL FEES**

Large Entity Small Entity

| Fee Code (\$) | Fee Code (\$) | Fee Description  | Fee Paid |
|---------------|---------------|--|----------|
| 1051 130      | 2051 65       | Surcharge - late filing fee or oath  |          |
| 1052 50       | 2052 25       | Surcharge - late provisional filing fee or cover sheet                     |          |
| 1053 130      | 1053 130      | Non-English specification  |          |
| 1812 2,520    | 1812 2,520    | For filing a request for <i>ex parte</i> reexamination                     |          |
| 1804 920*     | 1804 920*     | Requesting publication of SIR prior to Examiner action                     |          |
| 1805 1,840*   | 1805 1,840*   | Requesting publication of SIR after Examiner action                        |          |
| 1251 110      | 2251 55       | Extension for reply within first month                                     |          |
| 1252 420      | 2252 210      | Extension for reply within second month                                    |          |
| 1253 950      | 2253 475      | Extension for reply within third month                                     |          |
| 1254 1,480    | 2254 740      | Extension for reply within fourth month                                    |          |
| 1255 2,010    | 2255 1,005    | Extension for reply within fifth month                                     |          |
| 1401 330      | 2401 165      | Notice of Appeal   |          |
| 1402 330      | 2402 165      | Filing a brief in support of an appeal                                     |          |
| 1403 290      | 2403 145      | Request for oral hearing   |          |
| 1451 1,510    | 1451 1,510    | Petition to institute a public use proceeding                              |          |
| 1452 110      | 2452 55       | Petition to revive - unavoidable   |          |
| 1453 1,330    | 2453 665      | Petition to revive - unintentional   |          |
| 1501 1,330    | 2501 665      | Utility issue fee (or reissue)   |          |
| 1502 480      | 2502 240      | Design issue fee   |          |
| 1503 640      | 2503 320      | Plant issue fee  |          |
| 1460 130      | 1460 130      | Petitions to the Commissioner  |          |
| 1807 50       | 1807 50       | Processing fee under 37 CFR 1.17(q)  |          |
| 1806 180      | 1806 180      | Submission of Information Disclosure Stmt                                  |          |
| 8021 40       | 8021 40       | Recording each patent assignment per property (times number of properties) |          |
| 1809 770      | 2809 385      | Filing a submission after final rejection (37 CFR 1.129(a))                |          |
| 1810 770      | 2810 385      | For each additional invention to be examined (37 CFR 1.129(b))             |          |
| 1801 770      | 2801 385      | Request for Continued Examination (RCE)                                    |          |
| 1802 900      | 1802 900      | Request for expedited examination of a design application                  |          |

Other fee (specify)

\*Reduced by Basic Filing Fee Paid

SUBTOTAL (3) (\$ ) 0

**SUBMITTED BY**

(Complete if applicable)

|                   |                               |                                   |             |           |              |
|-------------------|-------------------------------|-----------------------------------|-------------|-----------|--------------|
| Name (Print/Type) | George L Rideout, Jr.         | Registration No. (Attorney/Agent) | 43880       | Telephone | 502-452-7792 |
| Signature         | <i>George L. Rideout, Jr.</i> | Date                              | May 24 2004 |           |              |

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(FW)



Atty. Dkt. No. IGC-102  
PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Xing Yuan, et al. :  
Serial No.: 10/606,467 : Art Unit: 2832  
Filed: June 30, 2003 : Examiner: Ramon M Barrera  
For: Method and Apparatus To Trigger :  
Superconductors In Current Limiting Devices :  
:

**Amendment**

Commissioner for Patents  
PO Box 1450  
Alexandria VA 22313-1450

In the Specification

Before Paragraph [001] please insert the following paragraph.

The U.S. Government has a paid-up license in this invention and the right in limited circumstances to require the patent owner to license others on reasonable terms as provided for by the terms of Contract No. DE-FC36-03G013033 awarded by the Department of Energy.

Please replace paragraph [0006] as follows.

[0006] US patent ~~application 2003/0021074A1 (Serial No. 10/051,671)~~ published January 30, 2003, 6,664,875, assigned to the assignee of the present invention, and entitled "Matrix-type Superconducting Fault Current Limiter," herein incorporated by reference, describes a mechanism that combines all three of the quenching factors of a superconductor, namely current, magnetic field and temperature, to achieve more uniform quenching of the superconductor during current limiting. This MFCL uses a magnetic field as ~~a major~~ one of the triggering